ABSTRACT OF THE DISCLOSURE

A non-contacting sensor based on inductive coupling for detecting failure initiation, and crack propagation in composite materials is disclosed. A very low cost crack sensing transducer or test pattern that can be imbedded into a structural material, interrogated, and powered wirelessly is described. A detection method for interrogating the crack sensor utilizing RF inductive coupling is disclosed. The proposed sensor consists of minimal components resulting in maximum reliability.

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